

AMENDMENT

Specification

Please amend the specification as follows:

In the BRIEF DESCRIPTION OF THE DRAWINGS, Paragraph [0013]:

The numerous advantages of the present invention may be better understood by those skilled in the art by reference to the accompanying figures in which:

FIG. 1 is an illustration of a laser apparatus including a computing system in accordance with an exemplary embodiment of the present invention;

FIG. 2 is an illustration of the laser apparatus showing alternative power supply embodiments;

FIGS. 3 and 4 illustrate the computing system shown in FIG. 1, including display screens;

FIG. 5 is an illustration of the computing system showing alternative power supply embodiments;

FIG. 6 is an illustration of the laser apparatus coupled to a leveling assembly in accordance with an exemplary embodiment of the present invention;

FIG. 7 is an illustration of a laser apparatus coupled to a level assembly and in communication with a remote computing system;

FIG. 8 is an isometric illustration of a table saw system including the laser apparatus shown in FIG. 1 coupled to a fence connected to a table saw emitting three laser beams;

FIG. 9 is a top plan view of the table saw system of FIG. 8 illustrating the laser apparatus emitting three laser beams for establishing distance measurements in accordance with an exemplary embodiment of the present invention;

FIG. 10A is a side elevation view of the table saw system of FIG. 8 illustrating the laser apparatus emitting a single laser beam for establishing a distance measurement;

FIG. 10B is a top plan view of the table saw system of FIG. 8 illustrating the laser apparatus emitting three laser beams for establishing blade height measurements in accordance with an exemplary embodiment of the present invention;

FIG. 10C is a side elevation view of the table saw system of FIG. 8 illustrating the laser apparatus emitting a single laser beam for establishing a blade height measurement;

FIG. 11A is an isometric illustration of the table saw system of FIG. 8 employing three laser beams for establishing the beveled angle of the blade;

FIG. 11B is an isometric illustration of the table saw system of FIG. 8 employing a single laser beam for establishing the beveled angle of the blade;

FIG. 12A is a first exemplary embodiment illustrating a bevel indication assembly for use with a table saw, the bevel indication assembly including a laser source coupled with an adjustment flange and a visual marker coupled with the table saw assembly;

FIG. 12B is a second exemplary embodiment illustrating a bevel indication assembly for use with a table saw, the bevel indication assembly including a laser source coupled with an adjustment flange and an indicator remote from the table saw;

FIG. 13 is an illustration of a laser light indicia and reading assembly coupled with a computing system in accordance with an exemplary embodiment of the present invention;

FIG. 14 is an illustration of the laser light indicia and reading assembly coupled to a level assembly, the computing system being coupled to the level assembly and in communication with the laser scanning apparatus;

FIGS. 15A, 15B, and 15C illustrate a known scanning module which may be employed in the laser light indicia and reading assembly in accordance with an exemplary embodiment of the present invention;

FIG. 16 is a top plan view of a known scanning module employing a dithering assembly;

FIG. 17 is an illustration of a known dithering assembly employing a drive coil and drive magnet to provide mirror oscillation;

FIG. 18 is an illustration of a known dithering assembly employing travel stops to control the range of rotational travel imparted to the mirror;

FIG. 19 is an illustration of a known dithering assembly employing pads connected to drive and feedback magnets to control the range of rotational travel imparted to the mirror;

FIG. 20 is an illustration of the laser light indicia and reading assembly coupled

with a table saw and establishing a laser light cut line;

FIG. 21 is an illustration of the laser light indicia and reading assembly coupled with the table saw and establishing a laser light cut line on a work piece;

FIG. 22A is a side elevation view illustrating the laser light indicia and reading assembly coupled with the table saw and establishing a blade height measurement;

FIG. 22B is a front plan view illustrating the laser light indicia and reading assembly coupled with the table saw and establishing the blade height measurement;

FIG. 23 is an illustration of a plurality of laser light indicia and reading assemblies coupled with the table saw and establishing a blade height measurement;

FIG. 24A is an isometric illustration of the laser light indicia and reading assembly coupled with the table saw and establishing the beveled angle of the blade;

FIG. 24B is a front plan view illustrating the laser light indicia and reading assembly coupled with the table saw and establishing the beveled angle of the blade;

FIG. 24C is an illustration of a plurality of laser light indicia and reading assemblies coupled with the table saw and establishing the beveled angle of the blade;

FIG. 25 is a flowchart illustrating functional steps which are accomplished by the laser apparatus and the laser light indicia and reading assembly of the present invention;

FIG. 26 is an illustration of a laser apparatus connected to a fence on a table saw, whereupon each laser source includes a dithering assembly;

FIG. 27 is an illustration of multiple laser light indicia and reading assemblies connected to a table saw emitting a laser beam grid produced by laser sources with dithering assemblies;

FIG. 28A is an illustration of the multiple laser light indicia and reading assembly connected to the table saw emitting the laser beam grid and establishing a blade height measurement;

FIG. 28B is a top plan view illustrating the grid and blade height measurement capabilities of the multiple laser light indicia and reading assembly connected to the table saw;

FIG. 29A is an illustration of the multiple laser light indicia and reading assembly connected to the table saw emitting the laser beam grid and establishing the beveled angle of the blade;

FIG. 29B is an top plan view illustrating the grid and beveled angle measurement capabilities of the multiple laser light indicia and reading assembly connected to the table saw;

FIG. 30 is an isometric illustration of a rotating laser apparatus including a computing system and rotation assembly in accordance with an exemplary embodiment of the present invention;

FIG. 31 is an illustration of the rotating laser apparatus including a display menu and an angle measurement device;

FIGS. 32 and 33 illustrate the rotation assembly including the angle of measurement device and a lock and release unit operable by the user;

FIG. 34 is an illustration of the rotating laser apparatus in operation;

FIG. 35 is an illustration of the rotating laser apparatus with laser beams produced by laser sources with dithering assemblies;

FIGS. 36 and 37 are illustrations of a computing system of the laser apparatus showing display menus available;

FIG. 38 is a flowchart illustrating functional steps which are accomplished by the rotating laser apparatus;

FIG. 39 is an illustration of a laser apparatus with a single laser source providing a laser beam which is split to emit separate laser beams from the laser beam source assemblies located within the housing by optical splitters;

FIG. 40 is an illustration of the laser apparatus coupled with a computing system that provides a single laser beam which is split to emit separate laser beams from the laser beam source assemblies located within the housing by optical splitters;

FIG. 41 is an illustration of a rotating laser apparatus with a single laser source;

FIG. 42 is an illustration of a rotating laser apparatus with a first and a second laser source;

FIG. 43 is an illustration of the laser apparatus in FIG. 39, including a plurality of photo multipliers disposed within a housing of the laser apparatus;

FIG. 44 is an illustration of a laser apparatus including a leveling mechanism in accordance with an exemplary embodiment of the present invention;

FIG. 45 is an illustration of a plurality of the laser apparatus, shown in FIG. 44,

coupled with one another;

FIG. 46 is an illustration of the laser apparatus in FIG. 44, providing leveling readings to a drop ceiling assembly;

FIG. 47 shows an exemplary home screen shown on a display of an exemplary user interface in accordance with an exemplary embodiment of the present invention;

FIG. 48 shows an exemplary settings screen shown on a display of an exemplary user interface in accordance with an exemplary embodiment of the present invention;

FIG. 49 shows an exemplary calibration screen shown on a display of an exemplary user interface in accordance with an exemplary embodiment of the present invention;

FIG. 50 shows an exemplary save screen shown on a display of an exemplary user interface in accordance with an exemplary embodiment of the present invention;

FIG. 51 shows an additional exemplary save screen shown on a display of an exemplary user interface in accordance with an exemplary embodiment of the present invention;

FIG. 52 shows a further exemplary save screen shown on a display of an exemplary user interface in accordance with an exemplary embodiment of the present invention;

FIG. 53 shows a still further exemplary save screen shown on a display of an exemplary user interface in accordance with an exemplary embodiment of the present invention;

FIGS. 54A and 54B shows illustrate an exemplary scheme according to which a user interface may operate in accordance with an exemplary embodiment of the present invention;

FIG. 55 shows an exemplary user interface with different screens in accordance with an exemplary embodiment of the present invention, which user interface may execute the scheme shown in FIGS. 54A and 54B;

FIG. 56 shows an exemplary calibration screen in accordance with an exemplary embodiment of the present invention;

FIG. 57 shows an additional exemplary calibration screen in accordance with an exemplary embodiment of the present invention;

FIG. 58 illustrates an exemplary home screen in accordance with an exemplary embodiment of the present invention;

FIG. 59 illustrates various exemplary screens in a distance mode in accordance with an exemplary embodiment of the present invention;

FIG. 60 illustrates various exemplary screens in an angle mode in accordance with an exemplary embodiment of the present invention;

FIG. 61 illustrates various exemplary screens in a height mode in accordance with an exemplary embodiment of the present invention;

FIG. 62 illustrates various exemplary screens in a settings mode in accordance with an exemplary embodiment of the present invention;

FIG. 63 shows an exemplary distance screen in accordance with an exemplary embodiment of the present invention;

FIG. 64 shows an exemplary distance fine adjustment screen in accordance with an exemplary embodiment of the present invention;

FIG. 65 shows an exemplary distance relative zero screen in accordance with an exemplary embodiment of the present invention;

FIG. 66 shows an exemplary default distance units screen in accordance with an exemplary embodiment of the present invention;

FIG. 67 shows an exemplary distance decimal unit screen in accordance with an exemplary embodiment of the present invention;

FIG. 68 shows an exemplary distance offset screen in accordance with an exemplary embodiment of the present invention;

FIG. 69 shows an exemplary distance recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 70 shows an additional exemplary distance recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 71 shows a further exemplary distance recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 72 shows a still further exemplary distance recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 73 shows an exemplary distance save screen in accordance with an

exemplary embodiment of the present invention;

FIG. 74 shows an additional exemplary distance save screen in accordance with an exemplary embodiment of the present invention;

FIG. 75 shows an exemplary angle screen in accordance with an exemplary embodiment of the present invention;

FIG. 76 shows an exemplary angle fine adjustment screen in accordance with an exemplary embodiment of the present invention;

FIG. 77 shows an exemplary angle zero screen in accordance with an exemplary embodiment of the present invention;

FIG. 78 shows an exemplary angle relative zero screen in accordance with an exemplary embodiment of the present invention;

FIG. 79 shows an exemplary angle recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 80 shows an additional exemplary angle recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 81 shows a further exemplary angle recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 82 shows an exemplary angle save screen in accordance with an exemplary embodiment of the present invention;

FIG. 83 shows an additional exemplary angle save screen in accordance with an exemplary embodiment of the present invention;

FIG. 84 shows an exemplary height screen in accordance with an exemplary embodiment of the present invention;

FIG. 85 shows an exemplary height fine adjustment screen in accordance with an exemplary embodiment of the present invention;

FIG. 86 shows an exemplary height absolute zero screen in accordance with an exemplary embodiment of the present invention;

FIG. 87 shows an exemplary default height units screen in accordance with an exemplary embodiment of the present invention;

FIG. 88 shows an exemplary height decimal unit screen in accordance with an exemplary embodiment of the present invention;

FIG. 89 shows an exemplary height offset screen in accordance with an exemplary embodiment of the present invention;

FIG. 90 shows an exemplary height recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 91 shows an additional exemplary height recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 92 shows a further exemplary height recall screen in accordance with an exemplary embodiment of the present invention;

FIG. 93 shows an exemplary height save screen in accordance with an exemplary embodiment of the present invention;

FIG. 94 shows an additional exemplary height save screen in accordance with an exemplary embodiment of the present invention;

FIG. 95 shows an exemplary settings screen in accordance with an exemplary embodiment of the present invention;

FIG. 96 shows an exemplary default global units screen in accordance with an exemplary embodiment of the present invention;

FIG. 97 shows an exemplary global metric units screen in accordance with an exemplary embodiment of the present invention;

FIG. 98 shows an exemplary system screen in accordance with an exemplary embodiment of the present invention;

FIG. 99 shows an exemplary sound screen in accordance with an exemplary embodiment of the present invention;

FIG. 100 shows an exemplary brightness screen in accordance with an exemplary embodiment of the present invention;

FIG. 101 shows an exemplary laser time out screen in accordance with an exemplary embodiment of the present invention;

FIG. 102 is a perspective view illustrating a user interface operationally coupled with a laser apparatus including a laser source, the laser apparatus coupled with a fence of a table saw assembly;

FIG. 103 is a perspective view illustrating a laser light indicia and reading assembly coupled with the user interface;

FIG. 104 is a perspective view illustrating a multiple laser light indicia and reading assemblies coupled with the user interface;

FIG. 105 is a perspective view illustrating a bevel indication assembly coupled with an imaging device and the user interface;

FIG. 106 is a perspective view illustrating a bevel indication assembly coupled with a sensor assembly and the user interface;

FIG. 107 illustrates an integrated laser table saw assembly in accordance with a first exemplary embodiment of the present invention including a table coupled with an integrated laser assembly operationally coupled with a user interface;

FIG. 108 is an expanded view of the integrated laser assembly including a laser source for emitting a laser beam through a plurality of lenses;

~~FIG. 109A is a perspective view of the integrated laser table saw assembly establishing a blade height measurement reading and the user interface displaying the reading; LIKE 107 ONLY ENLARGE THE SCREEN ON UI~~

FIG. 109[[B]] illustrates the user interface operationally coupled with the integrated laser assembly and a secondary computing system, for receiving, displaying, and transmitting information;

FIG. 110 is a perspective view illustrating a second exemplary embodiment of an integrated laser table saw assembly wherein the integrated laser assembly includes a plurality of laser sources for emitting a plurality of laser beams through a plurality of lenses;

FIG. 111 is a perspective view of the integrated laser table saw assembly of FIG. 110, wherein a user interface is operationally coupled with a secondary computing system and the integrated laser assembly for receiving, displaying, and transmitting information, such as establishing a beveled angle measurement reading;

FIG. 112A is an isometric illustration of a router table assembly including a table coupled with a router, the router operationally engaging a bit and disposed with an integral laser apparatus, the integral laser apparatus including a laser source emitting a single laser beam onto a first exemplary router bit height indicator;

FIG. 112B is a side elevation view illustrating the router table assembly including

a table coupled with a router, the router operationally engaging a bit and disposed with an integral laser apparatus, the integral laser apparatus including a laser source emitting a single laser beam onto a second exemplary router bit height indicator;

FIG. 113 is a perspective view of a router table assembly including a table coupled with a router, the router operationally engaging a bit and disposed with a laser light indicia and reading apparatus, the laser light indicia and reading apparatus including a laser source emitting a single laser beam onto a first exemplary router bit height indicator;

FIG. 114 is an illustration of a router table assembly including a table coupled with a router, the router operationally engaging a bit and disposed with a laser light indicia and reading apparatus, the laser light indicia and reading apparatus being communicatively coupled with a user interface and a imaging device for identifying and displaying, to a user of the router table assembly, bit height;

FIG. 115 is an illustration of a router table assembly including a table coupled with a router, the router operationally engaging a bit and disposed with an integral laser apparatus, the integral laser apparatus including a laser source emitting a single laser beam onto a bit height sensor assembly which is communicatively coupled to a user interface;

FIGS. 116A is an isometric illustration of a router table assembly including a table coupled with a router, the router operationally engaging a bit, coupled with the table is a first exemplary bit height indication assembly including an optical assembly comprising a laser source and a laser sensor, the laser source for emitting a single laser beam which operationally contacts the laser sensor, the laser source and laser sensor are communicatively coupled to a user interface to provide information;

FIG. 116B is a side elevation view of the router table assembly of FIG. 116A;

FIG. 117A is an isometric illustration of a router table assembly including a table coupled with a router, the router operationally engaging a bit, coupled with the table is a second exemplary bit height indication assembly including an optical assembly comprising a laser source and a laser sensor, the laser source for emitting multiple laser

beams which operationally contact with the laser sensor, the laser source and laser sensor are communicatively coupled to a user interface to provide information;

FIG. 117B is an illustration of the router table assembly shown in FIG. 117A including a docking station for coupling with the user interface;

FIG. 118 is an isometric illustration of a router table assembly including a table coupled with a router, the table being further disposed with a first exemplary embodiment of an integrated laser assembly including a laser source and laser sensor, the laser source for emitting one or more laser beams which operationally engage with the laser sensor, the integrated laser assembly being communicatively coupled with a user interface;

FIG. 119 is a perspective view of the router table assembly including the first exemplary integrated laser assembly wherein the user interface is remotely located from the table and shown to be capable of displaying various information, such as router bit height information;

FIG. 120 is a perspective view illustrating a second exemplary embodiment of an integrated laser assembly, for use with a router table assembly, wherein the integrated laser assembly includes a plurality of laser sources for emitting a plurality of laser beams which operationally engage with a plurality of laser sensors;

FIG. 121 is an isometric illustration of a laser level apparatus in accordance with an exemplary embodiment of the present invention;

FIG. 122 is a top plan view of the laser level apparatus;

FIG. 123 is a front plan view of the laser level apparatus;

FIG. 124 is a side elevation view of the laser level apparatus;

FIG. 125 is a bottom plan view of the laser level apparatus;

FIG. 126 is a side elevation perspective view illustrating a laser source and lens assembly of the laser level apparatus;

FIG. 127 is an isometric illustration of a second exemplary embodiment of the laser level apparatus including an angle indication assembly;

FIG. 128 is a perspective view of the laser level apparatus of FIG. 127 engaged upon a surface;

FIG. 129 is an isometric view of a user interface in accordance with an exemplary embodiment of the present invention wherein the user interface is in a screen mode which enables the user interface to establish a plurality of screen configurations through user selection;

FIG. 130 is an isometric view of the user interface of the present invention wherein the user interface is in a units mode which enables the user interface to establish reading and measurement data in a plurality of formats through user selection;

FIG. 131 is an isometric view of the user interface of the present invention wherein the user interface is enabled in a laser mode which enables the user interface to present information received from a plurality of optical assemblies, such as the lasers employed in the bevel indication assemblies and the router bit height indication assemblies of the present invention, through user selection;

FIG. 132 is an isometric view of the user interface of the present invention wherein the user interface is enabled in a camera mode which enables the user interface to display information received from such devices as the imaging assembly, through user selection;

FIG. 133 is an isometric view of the user interface of the present invention wherein the user interface is enabled in a table saw mode;

FIG. 134 is an isometric view of the user interface in the table saw mode presenting information in a dual-cell screen configuration which is enabled by user selection of the information desired to be displayed;

FIG. 135 is an isometric view of the user interface in the table saw mode wherein saw blade angle information is being presented in the dual-cell screen mode along with user selectable options;

FIG. 136 is an isometric view of the user interface in the table saw mode presenting information in the dual-cell screen configuration which is enabled by user selection of the information desired to be displayed;

FIG. 137 is an isometric view of the user interface in the table saw mode wherein

the dual-cell screen is enabled with a camera view display of the table saw along with a data information display regarding the cut being made;

FIG. 138 is an isometric view of the user interface in the table saw mode wherein the dual-cell screen is enabled with a finish cut display and a data information display regarding the cut made;

FIG. 139 is an isometric view of the user interface of the present invention wherein the user interface is enabled in a router mode;

FIG. 140 is an isometric view of the user interface in the router mode presenting information in a dual-cell screen configuration which is enabled by user selection of the information desired to be displayed;

FIG. 141 is an isometric view of the user interface in the router mode wherein the dual-cell screen is enabled with a camera view display of the router along with a data information display;

FIG. 142 is an isometric view of the user interface in the router mode wherein the dual-cell screen is enabled with a finish cut display and a data information display;

FIG. 143 is a power tool control system in accordance with an exemplary embodiment of the present invention; and

FIG. 144 is an illustration of the graphical user interface of the power tool control system of FIG. 143 in accordance with an exemplary embodiment of the present invention[[;]]. and

~~FIG. 145 is an isometric illustration of the exemplary graphical user interface in accordance with the present invention.~~

Page 28, Paragraph [0040]:

A table saw system 800 including the laser apparatus 100 mounted on a fence 804 which is connected to a table saw 802, is shown in FIGS. 8 through 10[[B]]C. Preferably, the laser apparatus 100 provides three laser beams. The laser beams may be used to establish three distance measurements indicated by d1, d2, and d3. These measurements are displayed to the user on the computing system 104. Additionally, the laser beams in communication with the computing system 104 may display a variety of information, such as circular saw blade height, circular saw blade angle, or the like. The table saw 802

further includes a circular saw blade 806, a first adjustment mechanism 808, and a second adjustment mechanism 810. In the present embodiment, the first adjustment mechanism 808 enables a user of the table saw 802 to adjust the angle of the circular saw blade 806 relative to the operational field of the table saw 802. The operational field may be defined as that area of the table saw 802 upon which a work piece may be placed and the circular saw blade 806 may perform a cut upon the work piece. In other embodiments where the laser apparatus 100 is mounted or connected to another power tool or device the operational field may include the area where the work piece is placed and a function is performed upon the work piece. The second adjustment mechanism 810 enables a user to adjust the height which the circular saw blade 806 extends above the surface of the operation field of the table saw 802.

Page 31, Paragraph [0046]:

In ~~an~~ still further alternative embodiment, shown in FIG. 11C, the laser source configuration within the housing 102 of the laser apparatus 100, is changed. In this embodiment, the laser source 106, 108, and 110 are “stacked” or aligned vertically, along a mid-point of the housing 102. The individual laser beams emitted, a1, a2, and a3, provide the beveled angle readings to the computing system 104 for display to a user. It is contemplated that the location of the “stacked” laser sources within the housing 102 may be varied without departing from the scope and spirit of the present invention.

Pages 49-50, Paragraph [0084]:

Referring now to FIGS. 28A, 28B, 29A, through and 29B, a table saw assembly 2800 similar to the table saw assembly 800 in every respect except that the table saw assembly 2800 further includes a first laser light indicia and reading assembly 2810 and a second laser light indicia and reading assembly 2820. The first laser light indicia and reading assembly 2810 is coupled with a fence 2860, which is coupled with a table 2870. It is contemplated that the first laser light indicia and reading assembly 2810 may be adjustably coupled with the fence 2860 and further that the first laser light indicia and reading assembly may be removed from the fence 2860. The second laser light indicia and reading assembly 2820 is coupled, via a mounting assembly 2880, with the table

2870. It is contemplated that the mounting assembly 2880 may be various assemblies, such as a riving knife assembly, blade guard assembly, and the like. Further, the second laser light indicia and reading assembly 2820 may be adjustably coupled with the mounting assembly 2880 or removable from the mounting assembly 2880. In alternative embodiments, the second laser light indicia and reading assembly 2820 may include a mounting apparatus which enables coupling, preferably adjustable and/or removable, with the table saw assembly 2800.

Page 50, Paragraph [0085]:

In the preferred embodiment, the first and second laser light indicia and reading assembly 2810 and 2820 are communicatively coupled with a computing system 2850 which is similar to the computing system 104, described previously. It is understood that the first and second laser light indicia and reading assemblies may be operationally and/or communicatively coupled with various devices, such as a user interface discussed below. FIGS. 28A and 28B illustrate the multiple laser light indicia and reading assemblies measuring blade height, h_1 , of the saw blade 2805, while FIGS. 29A and 29B illustrate the invention providing a reading of the beveled angle, a_1 , of the saw blade 2805. The first laser light indicia and reading assembly 2810 employs a first laser source 2830 and the second laser light indicia and reading assembly 2820 employs a second laser source 2840. In the preferred operational embodiment shown in the current FIGS. ~~28 through 29~~
28A, 28B, 29A, and 29B, the first and second laser sources 2830 and 2840 emit laser beams which establish a grid pattern of coverage upon the table 2870 of the table saw assembly 2800. The grid pattern established may enable the table saw assembly 2800 to provide increased accuracy in the readings established. The first and second laser sources may be similar to the laser sources described previously, in that the emitted laser beams may be invisible to the human eye. Alternatively, the first and second laser sources may be enabled with assemblies, such as light emitting diode assemblies, which may visibly establish the pattern of the emitted laser beams upon the table 2870.

Pages 66-67, Paragraph [00124]:

A user interface coupled with a laser measurement and alignment device in accordance with an exemplary embodiment of the present invention may operate according to a scheme 5400 shown in FIGS. 54A and 54B. As shown in FIGS. 54A and 54B, when a laser measurement and alignment device and a user interface are not attached to a power tool (e.g., a table saw, belt sander, lathe, drill press, nailer, router table, and the like), the laser measurement and alignment device and the user interface may be used to do other measurements unrelated to the power tool or may be recharged. Additionally, the software loaded onto the user interface may be updated. For instance, the user interface may include a disk drive for loading software applications and saving information onto a remov[[e]]able memory media. Alternatively, the user interface may include a drive for a DVD, a CD-ROM, flash memory devices, and the like, for receiving software updates. When a laser measurement and alignment device and a user interface are attached to a power tool (e.g., a table saw, or the like), the laser measurement and alignment device and the user interface may be used to perform measurements on the power tool. Additionally, the laser measurement and alignment device may be automatically calibrated through the user interface.

Page 67, Paragraph [00125]:

In one embodiment of the present invention, a user interface may include four operational modes: distance, angle, height, and settings, as shown in FIGS. 54A and 54B.

Page 67, Paragraph [00126]:

In a distance mode, a user may set a desired distance, e.g., a distance between a saw blade and fence of a table saw through the user interface. In the exemplary embodiment shown in FIGS. 54A and 54B, the user interface in a distance mode may include five options: (1) return to home state; (2) fine adjustment; (3) recall dimension (i.e., recall a previous saved distance); (4) save dimension (i.e., save the current distance); and (5) back one level. Under the fine adjustment option, the user interface may include three options: (1) zero dimension, either absolute or relative; (2) units (fraction, decimal, or metric); and (3) add offset distance.

Page 67, Paragraph [00127]:

In an angle mode, a user may set a desired angle, e.g., an angle between a saw blade and a line perpendicular to a table surface of a table saw through the user interface. As shown in FIGS. 54A and 54B, the user interface in an angle mode may include five options: (1) return to home state; (2) fine adjustment; (3) recall angle (i.e., recall a previous saved angle); (4) save dimension (i.e., save the current angle); and (5) back one level. Under the fine adjustment option, the user interface may include two options: (a) zero dimension (either absolute or relative); and (b) compute an angle (a result based on miter and bevel).

Page 67-68, Paragraph [00128]:

In a height mode, a user may set a desired height, e.g., a height of a saw blade over a table surface of a table saw through the user interface. As shown in FIGS. 54A and 54B, the user interface in a height mode may include five options: (1) return to home state (the interface directly returns to a home screen when this option is chosen); (2) fine adjustment; (3) recall dimension (i.e., recall a previous saved height); (4) save dimension (i.e., save the current height); and (5) back one level (the interface goes back one level when this option is chosen). Under the fine adjustment option, the user interface may include two options: (a) zero height (either absolute or relative); and (b) units (fraction, decimal, or metric).

Page 68, Paragraph [00129]:

In a settings mode, a user may set desired settings for the user interface. As shown in FIGS. 54A and 54B, the user interface in a settings mode may include five options: (1) return to home state; (2) global units; (3) calibration; (4) system; and (5) back one level. Under the global units option, the user interface may include three options: (a) fraction; (b) decimal; and (c) metric. The default unit may be fraction. Under the fraction unit, a user may choose a resolution such as 1/128, 1/64, 1/32, or the like. Under the decimal unit, a user may choose a resolution such as 0.0, 0.00, 0.000, or the like. Under the calibration option, the user interface may include three options: (a) measurements (distance, angle or height); (b) fence side (either left or right); (c) fence orientation (either

horizontal or vertical). Under the system option, the user interface may include three options: (a) sound (either on or off); (b) display (to adjust brightness and contrast of the display); and (c) laser. Under the laser option, the user interface may include three options: (i) on (laser is on for 10 seconds, 20 seconds, 30 seconds, or the like); (ii) off (laser is off); and (iii) sleep mode (laser falls asleep after laser is on for 10 seconds, 20 seconds, 30 seconds, or the like). Additionally, under the system option, a user may update the software loaded onto the user interface.

Page 69, Paragraph [00131]:

FIG. 55 shows an exemplary user interface 5800 with different exemplary screens which may execute the scheme 5400 shown in FIGS. 54A and 54B. FIG. 56 shows the user interface 5800 with an exemplary calibration screen, and FIG. 57 shows the user interface 5800 with an additional exemplary calibration screen. The user interface 5800 will be described in detail along with FIG. 58.

Page 95, Paragraph [00193]:

To further explain the embodiment shown in FIG. 106, the sensor assembly 11402 may replace the laser source 11302 and visual marker 11314 of the exemplary bevel indication assembly shown in FIG. 105. The sensor assembly 11402 may consist of a plurality of sensors placed around an adjustment flange 11412. Each sensor may represent a different angular position for the circular saw blade 11408. For instance, one sensor may represent ten degrees while another may represent twenty degrees. As the adjustment flange 11412 rotates with the circular saw blade 11408, the sensor that corresponds to the actual beveled angle, will be activated. Once activated the user interface 11410 recognizes which sensor has sent a signal and displays the corresponding beveled angle, on a display screen 11414. The sensor assembly 11402 may provide the beveled angle without requiring the visual marker 11314 of FIG. 105. It is contemplated that the sensor assembly 11402 may be mounted entirely on the inside of a cabinet 11405 of the table saw assembly 11400, and the user interface 11410 may be positioned so that it is readable from any position.

Pages 96-97, Paragraph [00197]:

Referring now to FIGS. 107 through 109[[B]], a table saw assembly 11500 includes a table 11502, a circular saw blade 11504, a user interface 11506, and an integrated laser assembly 11510. The user interface 11506 is similar in every respect to those described above in FIGS 47 through 106, and is communicatively coupled with the integrated laser assembly 11510. It is understood that the user interface 11506 may couple with the integrated laser assembly 11510 through various communication assemblies employing various communication technologies, such as serial cable, blue-tooth, fiber optics, and the like.

Appl. No. 10/767,214
Title: Power Tool Control System
PRELIMINARY AMENDMENT

In the Drawings

Please amend the Drawing Figures as follows:

Please cancel Drawing Figures 54 and 145.

Please add Drawing Figures 54A and 54B, which are intended to replace cancelled FIG. 54.

The newly added Drawing Figures 54A and 54B are presented in the following pages.